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Application No. : **2,106,847**
Owner : THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF
NEW YORK
Title : ODORANT RECEPTORS AND USES THEREOF
Classification : C12N-15/12
Your File No. : **08-865205CA**
Examiner : Holly Notman

IN ACCORDANCE WITH SUBSECTION 30(2) OF THE PATENT RULES, YOU ARE HEREBY
NOTIFIED OF A REQUISITION BY THE EXAMINER. IN ORDER TO AVOID ABANDONMENT
UNDER PARAGRAPH 73(1)(A) OF THE PATENT ACT, A WRITTEN REPLY MUST BE
RECEIVED WITHIN 6 MONTHS AFTER THE ABOVE DATE.

This application has been examined as originally filed.

The number of claims in this application is 98.

A search of the prior art has revealed the following:

References Applied:

CAPLUS database

DN: 107:195439 1987 Novoselov et al

Journal article

Trends in NeuroScience 12: 35-38 1989 Snyder et al

Novoselov et al isolated a membrane glycoprotein from rat olfactory epithelium which could
bind odorants.

Snyder et al reviewed odorant receptors.

Claims 1-3, 27-33, 35, 58-63, 65-83, 85-87 do not comply with Section 28.3 of the Patent Act.
The subject matter of these claims would have been obvious on the claim date to a person
skilled in the art or science to which they pertain having regard to Novoselov et al and Snyder
et al.

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As odorant receptors were known in the prior art, applicant is not entitled to claim such receptors *per se*. Furthermore, as such receptors were known to be proteins, it was obvious that nucleic acids would encode such proteins. Applicant has disclosed that "the proteins encoded by all five clones shared distinctive sequence motifs not found in other superfamily members" (page 24); and that there are "important differences between the olfactory protein family and the other seven transmembrane domain proteins described previously" (page 27). As applicant appears to have described a novel family of proteins, he is entitled to broad claims to this family, that is, he is not restricted to claiming only the specific receptors he has sequenced. However, applicant must claim the odorant receptors in terms of the distinctive sequence motifs which characterise the entire family and differentiate it from other transmembrane domain proteins. It follows that claims for methods of using odorant receptors, devices incorporating such receptors, etc are obvious unless they are restricted to the novel class of receptors disclosed in the instant application.

Claims 88 and 97 are directed to a method of medical treatment which is outside the definition of invention in Section 2 of the Patent Act.

A statement in an application, such as found on page 1, line 6, which incorporates by reference any other document, does not comply with Subsection 137(1) of the Patent Rules.

In accordance with Subsection 137(2) of the Patent Rules, all documents referred to in the description of an application must be available to the public. Reference to the document on page 1, line 7 & 14 must be deleted or replaced by its corresponding patent number.

Under Section 140 of the Patent Rules, every trade-mark must be identified as a trade-mark. If "RNAzol" on page 17; "ZAP" on page 19 and "Bluescript" on page 24 are trade-marks, they must be so identified.

Under Section 29 of the Patent Rules, applicant is requisitioned to provide an identification of any additional prior art cited in respect of the corresponding United States and European Patent Office applications and the patent numbers, if granted. Amendment to avoid references cited abroad may make further action unnecessary. Applicant is also requisitioned to give the latest status of the corresponding EPO and U.S. applications and any conflict, opposition, re-examination, or similar proceeding encountered.

In view of the foregoing defects, the applicant is requisitioned to amend the application in order to comply with the Patent Act and the Patent Rules or to provide arguments as to why the application does comply.

Holly Notman
Examiner
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